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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/638,425	08/12/2003	Jesse Zhu	14417	5075

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EXAMINER	
GORMAN, DARREN W	
ART UNIT	PAPER NUMBER
3752	

DATE MAILED: 12/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/638,425	ZHU ET AL.	
	Examiner	Art Unit	
	Darren W. Gorman	3752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-47* is/are pending in the application.

4a) Of the above claim(s) *13-47* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4* is/are rejected.

7)☒ Claim(s) *5-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claims 13-47 remain withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 19, 2005.

Drawings

2. The drawing sheet showing Figures 2, 2a and 2b was received on November 28, 2005. This drawing sheet is acceptable.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagasaka et al., USPN 4,805,069.

Nagasaka et al. shows a powder spraying apparatus (see Figure 3) comprising: a housing (1) having first and second ends, the housing defining a chamber (2) terminating in an outlet passageway (in direction of arrow 9 – actual outlet not shown) at the first end of the housing; a high voltage pin electrode (3) positioned in the chamber upstream of the outlet passageway, the

high voltage electrode having a first surface area; a ground electrode (4 – grounded via lead wire 21) positioned in the chamber upstream from the high voltage electrode, the ground electrode having a second surface area that is larger than a surface area of the high voltage electrode, whereby a pin-to-surface electrode configuration is formed; and an inlet opening (to the left of arrow 8 – actual inlet not shown) into the chamber located at the second end of the housing which conducts a powder-gas mixture (8) into the chamber.

Further, Nagasaka et al. shows means (16a) for supplying a cleaning gas (17) toward the high voltage electrode (see Figure 3; and column 7, lines 1-10). Nagasaka et al. also shows the device wherein the high voltage electrode comprises at least one charging pin (3) connected to a conductor (5c) located within an electrically insulated tube (3a) disposed along an axis of the housing, the conductor being connected to a high voltage power supply (5, 5a) (see Figure 3; and column 6, line 60 through column 7, line 10).

NOTE: Although surface area dimensions of electrodes "3" and "4" are not expressly discussed in the disclosure of Nagasaka et al., it appears that the entire surface area of the grounded electrode (4) in Figure 3 is significantly larger than the entire surface area of the high voltage electrode (3). Further, with respect to the limitations of "a first surface area" and "a second surface area", such terms are broad enough that either of the surface areas recited could be drawn to anything from only a minute portion to an entire or whole surface area of each electrode. However, even if one interprets "a first surface area" and "a second surface area" as being limited to only the entire or whole surface area of each respective electrode, it remains the Examiner's position that Figure 3 shown by Nagasaka et al. anticipates the recited structure of claim 1. Further, with regard to the recitation "such that when a high voltage is applied to the

high voltage electrode, an electrical field produced in a vicinity of the ground electrode is sufficiently low to prevent arc discharging occurring in the vicinity of the ground electrode in the chamber", it can reasonably be assumed that arc discharging would also be prevented in the same "vicinity of the ground electrode" region of the apparatus shown in the Figure 3 embodiment of Nagasaka et al., even though not expressly discussed in the disclosure of Nagasaka et al., since the structure as recited in claim 1 is anticipated.

Allowable Subject Matter

5. Claims 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments filed on pages 18-21 of the response filed November 28, 2005, in view of the amendments to claim 1 filed therewith, have been fully considered but they are not persuasive. It is believed that the Examiner has addressed all of the arguments/remarks set forth in the aforementioned pages of the November 28, 2005 response (see above paragraph 4 of this Office Action), with the exception of one point, as discussed below.

Applicant's arguments throughout pages 18-21 of the aforementioned response essentially assert that the disclosure of Nagasaka et al. teaches a structure which falls within the category of a "pin-to-pin" electrode configuration, rather than the "pin-to-surface" configuration as now claimed, because the embodiment discussed in column 5, lines 5-10 and 14-20 (as shown

in Figures 1 and 2), the embodiment discussed in column 7, lines 21-29 (as shown in Figure 4), the embodiment discussed in column 7, lines 53-58 (as shown in Figure 5), and the embodiment discussed in column 8, lines 34-40 and 48-50 (as shown in Figures 6 and 7), all show and teach the opposing electrodes as pin or "needle" electrodes, and therefore do not teach "pin-to-surface" configurations. However, the Examiner notes that Applicant has not discussed any of the disclosure of Nagasaka et al. with respect to the embodiment disclosed in column 6, line 25 through column 7, line 10 (as shown in Figure 3), which is the embodiment that the Examiner has consistently and solely relied upon as prior art under 35 U.S.C. 102(b) throughout prosecution of the instant case. Therefore, since the apparatus as recited in claims 1-4 of the present application is structurally anticipated by the relied upon embodiment of Nagasaka et al., Applicant's arguments with respect to the features of the other disclosed embodiments of Nagasaka et al. not relied upon by the Examiner, are irrelevant.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Darren W. Gorman whose telephone number is 571-272-4901. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Scherbel can be reached on 571-272-4919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Darren W Gorman
Examiner
Art Unit 3752

DWG 12/4/05
DWG
December 6, 2005

David A. Scherbel
Supervisory Patent Examiner
Group 3700